

List of All Chemicals

P Cananga odorata (Annonaceae)

Common name(s)

Ylang-Ylang; Cananga

How used

GRAS

*Unless otherwise noted all references are to Duke, James A. 1992. Handbook of phytochemical constituents of GRAS herbs and other economic plants. Boca Raton, FL. CRC Press.

Chemical	Plant Part	Low PPM	High PPM	StdDev	*Reference
2-METHYL-BUT-3-EN-2-OL	Flower	--	--		*
3-METHYL-BUT-2-EN-1-OL	Flower	--	--		*
3-METHYL-BUT-3-EN-1-OL	Flower	--	--		*
ACETIC-ACID	Flower	--	--		*

Activities (16)

Acidulant	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
Antibacterial 5,000 ppm	
Antiotitic	Martindale's 28th
Antisalmonella	
Antivaginitic 1-2%	
Expectorant	Martindale's 28th
Fungicide	Martindale's 29th
Keratitigenic	
Mucolytic	Martindale's 29th
Osteolytic	
Perfumery FEMA 6,000-40,000 ppm	Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry
Pesticide	
Protisticide	Martindale's 29th
Spermicide	Martindale's 28th
Ulcerogenic	HerbalGram No. 20, page 9.
Verrucolytic	

ACETONE	Flower	--	--		*
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Activities (3)

Allergenic	
CNS-Depressant	Martindale's 29th
Narcotic	Martindale's 29th

BENZALDEHYDE	Flower	--	--		*
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Activities (24)

Allergenic	
Anesthetic	
Antibacterial	
Anticancer	
Antimutagenic	
Antipeptic	
Antiseptic	
Antispasmodic	
Antitumor	
Candidicide	
FLavor FEMA 150-800	Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry
Immunostimulant	
Insecticide	Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
Insectifuge 50 ppm	J. Stored. Prod. Res., 22:141, 1986.

Narcotic	Merck 11th Edition
Nematicide MLC=1 mg/ml	Shoyakugaku Zasshi, 44: 183.
Pesticide	
Sedative	Buchbauer et al. e.g. Buchbauer et al, 1993. Therapeutic properties of essential oils and fragrances. Chap. 12 in Teranishi, R., Buttery, R.G. and Sugisawa, H. Eds. Bioactive Volatile Compounds from Plants. ACS Symposium Series 525. Amer. Chem. Soc., Washington DC
Termiticide LD100=5 mg/g	
Tyrosinase-Inhibitor ID50=820 uM	
Tyrosinase-Inhibitor ID50=87 ug/ml	
Tyrosinase-Inhibitor ID50=0.82 mM	
Tyrosinase-Inhibitor ID50=830 uM	

BENZOIC-ACID Flower -- -- *

Activities (20)

Allergenic	Martindale's 28th
Anesthetic	
Antibacterial 33-1,250 ppm	
Antibacterial MBC=800 ug/ml	
Antiotitic	Martindale's 28th
Antipyretic	
Antisalmonella MIC=800 ug/ml	
Antiseptic 800 ug/ml	
Antiyeast MFC=1,600 ug/ml	
Choleretic	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
Expectorant	
FLavor FEMA 250	Aloe Research Council - Duke writeup of non-peer reviewed book by Coats and draft by Henry
Fungicide MFC=1,600 ug/ml	
Insectifuge	Jacobson, M., Glossary of Plant-Derived Insect Deterrents, CRC Press, Inc., Boca Raton, FL, 213 p, 1990.
Pesticide	
Phytoalexin	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
Tyrosinase-Inhibitor ID50=710 uM	
Tyrosinase-Inhibitor ID50=640 uM	
Uricosuric	
Vulnerary	

BENZYL-ACETATE Flower -- -- *

Activities (9)

Acaricide	
Cardiotonic	Zebovitz, T. C. Ed. 1989. Part VII. Flavor and Fragrance Substances, in Keith L. H. and Walters, D.B., eds. Compendium of Safety Data Sheets for Research and Industrial Chemicals. VCH Publishers, New York. 3560-4253.
Emetic	Zebovitz, T. C. Ed. 1989. Part VII. Flavor and Fragrance Substances, in Keith L. H. and Walters, D.B., eds. Compendium of Safety Data Sheets for Research and Industrial Chemicals. VCH Publishers, New York. 3560-4253.
FLavor FEMA 35-800	Aloe Research Council - Duke writeup of non-peer reviewed book by Coats and draft by Henry
Hypotensive	Zebovitz, T. C. Ed. 1989. Part VII. Flavor and Fragrance Substances, in Keith L. H. and Walters, D.B., eds. Compendium of Safety Data Sheets for Research and Industrial Chemicals. VCH Publishers, New York. 3560-4253.
Irritant	Zebovitz, T. C. Ed. 1989. Part VII. Flavor and Fragrance Substances, in Keith L. H. and Walters, D.B., eds. Compendium of Safety Data Sheets for Research and Industrial Chemicals. VCH Publishers, New York. 3560-4253.
Laxative	Zebovitz, T. C. Ed. 1989. Part VII. Flavor and Fragrance Substances, in Keith L. H. and Walters, D.B., eds. Compendium of Safety Data Sheets for Research and Industrial Chemicals. VCH Publishers, New York. 3560-4253.
Tumorigenic	Zebovitz, T. C. Ed. 1989. Part VII. Flavor and Fragrance Substances, in Keith L. H. and Walters, D.B., eds. Compendium of Safety Data Sheets for Research and Industrial Chemicals. VCH Publishers, New York. 3560-4253.
Varroacide	

BENZYL-ALCOHOL Flower -- -- *

Activities (9)

Allergenic	Martindale's 29th
Anesthetic	Martindale's 28th
Antiodontalgic	Martindale's 28th
Antipruritic	
Antiseptic	Martindale's 29th

Fungicide
Pesticide
Sedative

Jim Duke's personal files.

BENZYL-BENZOATE Flower -- -- *

Activities (17)

Acaricide LD50=9.22 ug/sq cm cf DEET at 37.59 ug/sq cm

Allergenic Martindale's 29th

Antiasthmatic

Antidysmenorrheic

Antispasmodic

Antitumor ED50=8-15 Jung, J.H., Pummangura, S., Chaichantipyuth, c., Patarapanich, C., and McLaughlin, J.L. 1989. Bioactive Constituents of Melodorum fruticosum. *Phytochemistry*. 29(5): 1667-1670. 1990.

Artemicide LC50=2 ppm Jung, J.H., Pummangura, S., Chaichantipyuth, c., Patarapanich, C., and McLaughlin, J.L. 1989. Bioactive Constituents of Melodorum fruticosum. *Phytochemistry*. 29(5): 1667-1670. 1990.

CNS-Depressant Zebovitz, T. C. Ed. 1989. Part VII. Flavor and Fragrance Substances, in Keith L. H. and Walters, D.B., eds. *Compendium of Safety Data Sheets for Research and Industrial Chemicals*. VCH Publishers, New York. 3560-4253.

CNS-Stimulant Martindale's 29th

Flavor FEMA 40-300 Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry

Hypotensive Zebovitz, T. C. Ed. 1989. Part VII. Flavor and Fragrance Substances, in Keith L. H. and Walters, D.B., eds. *Compendium of Safety Data Sheets for Research and Industrial Chemicals*. VCH Publishers, New York. 3560-4253.

Insectifuge Martindale's 29th

Irritant Zebovitz, T. C. Ed. 1989. Part VII. Flavor and Fragrance Substances, in Keith L. H. and Walters, D.B., eds. *Compendium of Safety Data Sheets for Research and Industrial Chemicals*. VCH Publishers, New York. 3560-4253.

Myorelaxant

Pediculicide Martindale's 29th

Pesticide

Scabicide Merck 11th Edition

BENZYL-SALICYLATE Flower -- -- *

Activities (2)

Allergenic

Flavor FEMA <1 Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry

BUTYL-ACETATE Flower -- -- *

CADINENE Flower -- -- *

Activities (4)

Antifeedant Jacobson, M., *Glossary of Plant-Derived Insect Deterrents*, CRC Press, Inc., Boca Raton, FL, 213 p, 1990.

Flavor FEMA 400-4,000 Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry

Perfumery Jeffery B. Harborne and H. Baxter, eds. 1983. *Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants*. Taylor & Frost, London. 791 pp.

Pesticide

CANANGINE Plant -- -- *

CARYOPHYLLENE Flower -- -- *

Activities (31)

Aldose-Reductase-Inhibitor

Allergenic

Analgesic Taylor, Leslie. 2005. *The Healing Power of Rainforest Herbs*. SquareOne Publisher, Garden City Park, NY. 519 pp.

Antiacne

Antiasthmatic Leung, A. Y. and Foster, S. 1995. *Encyclopedia of Common Natural Ingredients 2nd Ed*. John Wiley & Sons, New York. 649 pp.

Antibacterial

Anticariogenic MIC=>1,600 ug/ml Muroi, H. and Kubo, I. 1993. Combination Effects of Antibacterial Compounds in Green Tea Flavor against *Streptococcus mutans*. *J. Agric. Food Chem.* 41: 1102-1105.

Antidermatitic

Antiedemic Shimizu,*M., et al. 1990. Anti-inflammatory Constituents of Topically Applied Crude Drugs. IV.1) Constituents and Anti-inflammatory Effect of Paraguayan Crude Drug 'Alhucema' (*Lavandula latifolia* Vill.)2). *Chem. Pharm. Bull.* 38(8): 2283-2284, 1990.

Antifeedant 500 ppm Keeler, R.F. and Tu, A.T. eds. 1991. *Toxicology of Plant and Fungal Compounds. (Handbook of Natural Toxins Vol. 6)* Marcel Dekker, Inc. NY. 665 pp.

Antiinflammatory IC50=100 uM Shimizu,*M., et al. 1990. Anti-inflammatory Constituents of Topically Applied Crude Drugs. IV.1) Constituents and Anti-inflammatory Effect of Paraguayan Crude Drug 'Alhucema' (*Lavandula latifolia* Vill.)2). *Chem. Pharm. Bull.* 38(8): 2283-2284, 1990.

Antileishmanic

Antionychotic Taylor, Leslie. 2005. *The Healing Power of Rainforest Herbs*. SquareOne Publisher, Garden City Park, NY. 519 pp.

Antiproliferant

Antispasmodic

Antistreptococcic	
Antitumor	Zheng, G.-O., Kenney, P.M., and Lam, L.K.T. Sesquiterpenes From Clove (<i>Eugenia caryophyllata</i>) As Potential Anticarcinogenic Agents. <i>Journal of Natural Products</i> 55(7): 999-1003, 1992.
Antiulcer	Taylor, Leslie. 2005. <i>The Healing Power of Rainforest Herbs</i> . SquareOne Publisher, Garden City Park, NY. 519 pp.
Candidicide	
FLavor FEMA 20-200	Aloe Research Council - Duke writeup of non-peer reviewed book by Coats and draft by Henry
Fungicide	
Gastroprotective	Taylor, Leslie. 2005. <i>The Healing Power of Rainforest Herbs</i> . SquareOne Publisher, Garden City Park, NY. 519 pp.
Insectifuge	
Irritant	Zebowitz, T. C. Ed. 1989. Part VII. Flavor and Fragrance Substances. in Keith L. H. and Walters, D.B., eds. <i>Compendium of Safety Data Sheets for Research and Industrial Chemicals</i> . VCH Publishers, New York. 3560-4253.
Larvicide	
Mosquitocide	
Perfumery	Merck 11th Edition
Pesticide	
Sedative	
Termitifuge	Jacobson, M., <i>Glossary of Plant-Derived Insect Deterrents</i> , CRC Press, Inc., Boca Raton, FL, 213 p, 1990.

CREOSOL	Flower	--	--	*
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Activities (2)					
Expectorant					
FLavor FEMA 0.02-20	Aloe Research Council - Duke writeup of non-peer reviewed book by Coats and draft by Henry				

D-ALPHA-PINENE	Flower	15.0	135.0	*
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DELTA-CADINENE	Flower	--	--	*
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Activities (9)					
Aldose-Reductase-Inhibitor					
Antiacne					
Antibacterial MIC800 ug/ml	Muroi, H. and Kubo, I. 1993. Combination Effects of Antibacterial Compounds in Green Tea Flavor against <i>Streptococcus mutans</i> . <i>J. Agric. Food Chem.</i> 41: 1102-1105.				
Anticariogenic MIC800 ug/ml	Muroi, H. and Kubo, I. 1993. Combination Effects of Antibacterial Compounds in Green Tea Flavor against <i>Streptococcus mutans</i> . <i>J. Agric. Food Chem.</i> 41: 1102-1105.				
Antistreptococcic					
Cytochrome-P450-Inducer					
P450-Inducer					
Pesticide					
Testosterone-Inducer					

EO	Flower	5000.0	25000.0	0.41	*
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EPSILON-CADINENE	Flower	--	--	*
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EUGENOL	Flower	--	--	*
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Activities (76)					
Acaricide LD50=5.47 ug/sq cm cf DEET at 37.59 ug/sq cm					
Allergenic					
Analgesic	Merck 11th Edition				
Anesthetic 200-400	Phytotherapy Research, 4: 93.				
AntiTNF					
Antiaggregant IC50=0.3 uM	Phytotherapy Research, 4: 93.				
Antiarachidonate					
Antibacterial 500 ppm	Valnet, J. 1982. <i>The Practice of Aromatherapy</i> . Translated from the 1980 French Edition by Robin Campbell and Libby Houston. Destiny Books, New York. 279 pp.				
Antibacterial MBC=400 ug/ml					
Anticonvulsant	Jeffery B., Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants</i> . Taylor & Frost, London. 791 pp.				
Antiedemic 100	Phytotherapy Research, 4: 95.				
Antiestrogenic					
Antifeedant	Jacobson, M., <i>Glossary of Plant-Derived Insect Deterrents</i> , CRC Press, Inc., Boca Raton, FL, 213 p, 1990.				
Antigenotoxic 50-500 mg/kg orl mus					
Antiherpetic IC50=16.2-25.6 ug/ml					
Antiinflammatory (11 uM) IC~97=1,000 uM					
Antikeratotic IC50=16.2-25.6					

Antimitotic	Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants.</i> Taylor & Frost, London. 791 pp.
Antimutagenic	Economic & Medicinal Plant Research, 6: 235.
Antinitrosating	
Antioxidant IC ₆₅ =30 ppm	
Antioxidant 10 uM	
Antiprostaglandin 11 uM	
Antiprostaglandin IC ₅₀ =9.2 mM	
Antipyretic 3 ml/man/day	
Antiradicular EC ₅₀ =2 u/l	
Antisalmonella MIC=400 ug/ml	
Antiseptic 3 ml/man/day	
Antiseptic 400 ug/ml	
Antispasmodic	Leung, A. Y. and Foster, S. 1995. <i>Encyclopedia of Common Natural Ingredients</i> 2nd Ed. John Wiley & Sons, New York. 649 pp.
Antistaphylococccic	Wright, C.W. (Ed) 2002. <i>Medicinal & Aromatic Plants-Industrial Profiles.</i> Artemisia. 344pp. Maffei, M. (Ed) 2002. <i>Vetiveria. The Genus Vetiveria.</i> Taylor & Francis. NY, NY. 191pp. Southwell, J., Lowe, R. (Eds) 1999. <i>Tea Tree. The Genus Melaleuca.</i> Harwood Acad. Pub. Amsterdam, Netherlands.
Antithromboxane	Lawrence Review of Natural Products, Jul-87.
Antitumor	Zheng, G-Q., Kenney, P.M., and Lam, L.K.T. Sesquiterpenes From Clove (<i>Eugenia caryophyllata</i>) As Potential Anticarcinogenic Agents. <i>Journal of Natural Products</i> 55(7): 999-1003, 1992.
Antiulcer	
Antiviral IC ₅₀ =16.2-25.6 ug/ml	
Apifuge	Jacobson, M., <i>Glossary of Plant-Derived Insect Deterrents</i> , CRC Press, Inc., Boca Raton, FL, 213 p, 1990.
CNS-Depressant	Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants.</i> Taylor & Frost, London. 791 pp.
COX-1-Inhibitor IC ₉₇ =1,000 uM	
COX-2-Inhibitor IC ₉₇ >1,000 uM	
COX-2-Inhibitor IC ₅₀ =129 uM	
Calcium-Antagonist IC ₅₀ =224 uM	
Calcium-Antagonist IC ₅₀ =200 uM gpg	
Cancer-Preventive	Stitt, P. A. <i>Why George Should Eat Broccoli.</i> Dougherty Co, Milwaukee, WI, 1990, 399 pp.
Candidicide	<i>Phytotherapy Research</i> , 4: 93.
Carcinogenic?	Nigg, H.N. and Seigler, D.S., eds. 1992. <i>Phytochemical Resources for Medicine and Agriculture.</i> Plenum Press, New York. 445 pp.
Carminative	Yamamoto, A., Umemori, S., and Muranishi, S. 1993. Absorption Enhancement of Intrapulmonary Administered Insulin by Various Absorption Enhancers and Protease Inhibitors in Rats. <i>J. Pharm. Pharmacol.</i> 46: 14-18, 1994.
Choleretic	
Cytochrome-P450-Inhibitor	Pizzorno, J. 1998. <i>Total Wellness.</i> Prima Health, a division of Prima.
Cytotoxic 25 ug/ml	<i>Phytotherapy Research</i> , 4: 93.
Dermatitogenic	
Enterorelaxant	<i>J. Aromatherapy</i> 4: 22.
FLavor FEMA 10-500	Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry
Fungicide	
Hepatoprotective 100 ppm	
Herbicide	
Insecticide	
Insectifuge	Jacobson, M., <i>Glossary of Plant-Derived Insect Deterrents</i> , CRC Press, Inc., Boca Raton, FL, 213 p, 1990.
Irritant	
Juvabional	Jacobson, M., <i>Glossary of Plant-Derived Insect Deterrents</i> , CRC Press, Inc., Boca Raton, FL, 213 p, 1990.
Larvicide	
Motor-Depressant	Buchbauer et al, e.g. Buchbauer et al, 1993. Therapeutic properties of essential oils and fragrances. Chap.12 in Teranishi, R., Buttery, R.G and Sugisawa, H. Eds. <i>Bioactive Volatile Compounds from Plants.</i> ACS Symposium Series 525. Amer. Chem. Soc., Washington DC
Nematicide MLC=2,000 ug/ml	<i>Shoyakugaku Zasshi</i> , 44: 183.
Neurotoxic	R.J. Hixtable (Huxtable, R.J. (as T. Max). 1992. This and That: The Essential Pharmacology of Herbs and Spices. <i>Tips</i> 13:15-20 Huxtable, R.J. 1992b. The Myth of Benificent Nature. The Risk of Herbal Preparations. <i>Anns. Intern. Med.</i> 117(2):165-6; Huxtable, R.
Perfumery	Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry
Pesticide	
Prostaglandin-Synthesis-Inhibitor 1 mM rbt	Chen, S. J., Wang, M. H., Chen, I. J. 1996. Antiplatelet and Calcium Inhibitory Properties of Eugenol and Sodium Eugenol Acetate. <i>Gen Pharmacol</i> , 27(4): 629-633.
Prostaglandin-Synthesis-Inhibitor IC ₅₀ =9.2 uM	
Sedative	
Termiticide LD ₁₀₀ =5 mg/g	
Trichomonicide LD ₁₀₀ =300 ug/ml	
Trichomonistat IC ₅₀ =10 ug/ml	Nigg, H.N. and Seigler, D.S., eds. 1992. <i>Phytochemical Resources for Medicine and Agriculture.</i> Plenum Press, New York. 445 pp.
Trypsin-Enhancer	Lawrence Review of Natural Products, Dec-93.
Ulcerogenic	<i>Phytotherapy Research</i> , 4: 93.

Vasodilator
Vermifuge

EUGENOL-METHYL-ETHER Flower -- -- *

Activities (5)

CNS-Depressant Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.

Cancer-Preventive Stitt, P. A. Why George Should Eat Broccoli. Dougherty Co, Milwaukee, WI, 1990, 399 pp.

DNA-Binder Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.

Hypothermic Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.

Myorelaxant Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.

FARNESOL Flower -- -- *

Activities (17)

Allergenic

Antiadenomic

Anticancer (Pancreas) IC50=39 uM

Anticarcinomic (Colon)

Anticarcinomic (Lung)

Antileukemic

Antimelanomic IC50=50 uM/l

Antispasmodic

Apoptotic

FLavor FEMA 0.1-3 Aloe Research Council - Duke writeup of non-peer reviewed book by Coats and draft by Henry Russell, G. B., Phytochemical resources for crop protection, N. Z. J. Technol., 2, 1986, 127-134.

Juvabional

Nematicide MLC=100 ug/ml Shoyakugaku Zasshi, 44: 183.

Perfumery Merck 11th Edition

Pesticide

Pheromonal

Sedative

Trichomonicide LD100=100 ug/ml

FORMIC-ACID Flower -- -- *

Activities (13)

Acaricide

Antiseptic

Antisyncopic

Astringent Merck 11th Edition

Corrosive Aloe Research Council - Duke writeup of non-peer reviewed book by Coats and draft by Henry

Counterirritant Merck 11th Edition

FLavor FEMA 500-2,500 Aloe Research Council - Duke writeup of non-peer reviewed book by Coats and draft by Henry

Fungistat Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.

Fungitoxic Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.

Irritant

Pesticide

Preservative Aloe Research Council - Duke writeup of non-peer reviewed book by Coats and draft by Henry

Toxic Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.

FURFURAL Flower -- -- *

Activities (6)

Antiseptic Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.

FLavor FEMA 1-30 Aloe Research Council - Duke writeup of non-peer reviewed book by Coats and draft by Henry

Fungicide

Insecticide

Irritant Newall, C. A., Anderson, L. A. and Phillipson, J. D. 1996. Herbal Medicine - A Guide for Health-care Professionals. The Pharmaceutical Press, London. 296pp.

Pesticide

GAMMA-CADINENE Flower -- -- *

Activities (35)

Allergenic	
Anthelmintic	Madaus, G. 1976. Lehrbuch der Biologischen Hilfsmittel. Vol., 1-3. 2862 pp. (+ 144 p. index). Georg Olms Verlag, Hildesheim. Reprint of 1938 Madaus.
Antibacterial MIC=400 ug/ml	Muroi, H. and Kubo, I. 1993. Combination Effects of Antibacterial Compounds in Green Tea Flavor against Streptococcus mutans. J. Agric. Food Chem. 41: 1102-1105.
Antibacterial MIC=64 ug/ml	
Antibacterial MBC=800 ug/ml	
Anticancer (Pancreas) IC50=265 uM	
Anticariogenic MIC=400 ug/ml	Muroi, H. and Kubo, I. 1993. Combination Effects of Antibacterial Compounds in Green Tea Flavor against Streptococcus mutans. J. Agric. Food Chem. 41: 1102-1105.
Antimelanomic IC50=150 uM/l	
Antisalmonella MIC=400 ug/ml	
Antiseptic 7 x phenol	Wagner & Wolff, eds. 1977. New Natural Products (RS164. I56. 176)
Antiseptic MIC=64 ug/ml	
Antiseptic 400-800 ug/ml	
Antispasmodic	Buchbauer, G., Jirovetz*, L., Nikiforov, A., Remberg, G., Raverdino, V. 1989. Headspace-Analysis and Aroma Compounds of Austrian Hay-Blossoms (Flores Graminis, Graminis Flos) used in Aromatherapy. J. Ess. Oil Res., 2: 185-191, 1990.
Antitubercular MIC=64 ug/ml	
Antitumor	Yu, S.G., Anderson, P.J., and Elson, C.E. 1995. Efficacy of B-Ionone in the Chemoprevention of Rat Mammary Carcinogenesis. J. Agric. Food Chem. 43: 2144-2147.
Antitumor (Pancreas) IC50=265 uM	
Ascaricide	Madaus, G. 1976. Lehrbuch der Biologischen Hilfsmittel. Vol., 1-3. 2862 pp. (+ 144 p. index). Georg Olms Verlag, Hildesheim. Reprint of 1938 Madaus.
CNS-Stimulant	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Cancer-Preventive	Stitt, P. A. Why George Should Eat Broccoli. Dougherty Co, Milwaukee, WI, 1990, 399 pp.
Candidicide	
Embryotoxic	
Emetic 3 x ipecac	Lawrence Review of Natural Products, Sep-97.
Expectorant	Madaus, G. 1976. Lehrbuch der Biologischen Hilfsmittel. Vol., 1-3. 2862 pp. (+ 144 p. index). Georg Olms Verlag, Hildesheim. Reprint of 1938 Madaus.
FLavor FEMA 1-10	Aloe Research Council - Duke writeup of non-peer reviewed book by Coats and draft by Henry
Fungicide IC93=2 mM	Lydon, J. & Duke, S., The potential of pesticides from plants, pp. 1-41 in Craker, L. & Simon, J., eds, Herbs, Spices & Medicinal Plants: Recent Advances in Botany, Horticulture, & Pharmacology, v. 4, Oryx Press, Phoenix, 1989, 267pp.
Herbicide IC100- 2,000 uM	Keeler, R.F. and Tu, A.T. eds. 1991. Toxicology of Plant and Fungal Compounds. (Handbook of Natural Toxins Vol. 6) Marcel Dekker, Inc. NY. 665 pp.
Insectifuge 50 ppm	
Insectiphile	Merck 11th Edition
Mycobactericide MIC=64 ug/ml	
Nematicide IC86=100 ug/ml	Nigg, H.N. and Seigler, D.S., eds. 1992. Phytochemical Resources for Medicine and Agriculture. Plenum Press, New York. 445 pp.
Nematicide MLC=1,000 ug/ml	Shoyakugaku Zasshi, 44: 183.
Perfumery	Merck 11th Edition
Pesticide	
Sedative	
Trichomonicide LD100=300 ug/ml	

GERANYL-ACETATE

Flower

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Activities (5)

Allergenic	
FLavor FEMA 1-20	Aloe Research Council - Duke writeup of non-peer reviewed book by Coats and draft by Henry
Insectiphile	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
Perfumery	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
Sedative	Jim Duke's personal files.

ISOEUGENOL

Flower

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Activities (16)

Allergenic	
AntiTNF	
Antiaggregant IC50=0.72 uM	Laekeman, G.M., Van Hoof, L., Haemers, A., Vanden Berghe, D.A., Herman, A.G., and Vlietinck, A.J. Eugenol a Valuable Compound for In Vitro Experimental Research and Worthwhile for Further In Vivo Investigation. Phytotherapy Research 4(3): 93, 1990.
Antiinflammatory	
Antioxidant IC79=30 ppm	

Bacteristat				
Cancer-Preventive	Stitt, P. A. Why George Should Eat Broccoli. Dougherty Co, Milwaukee, WI, 1990, 399 pp.			
Candidistat				
Cytotoxic 25 ug/ml	Laekeman, G.M., Van Hoof, L., Haemers, A., Vanden Berghe, D.A., Herman, A.G., and Vlietinck, A.J. Eugenol a Valuable Compound for In Vitro Experimental Research and Worthwhile for Further In Vivo Investigation. <i>Phytotherapy Research</i> 4(3): 93, 1990.			
Fungistat 100 ug/ml	Laekeman, G.M., Van Hoof, L., Haemers, A., Vanden Berghe, D.A., Herman, A.G., and Vlietinck, A.J. Eugenol a Valuable Compound for In Vitro Experimental Research and Worthwhile for Further In Vivo Investigation. <i>Phytotherapy Research</i> 4(3): 93, 1990.			
Motor-Depressant	Buchbauer et al, e.g.Buchbauer et al,1993.Therapeutic properties of essential oils and fragrances. Chap.12 in Teranishi,R, Buttery,R.G and Sugisawa,H. Eds. <i>Bioactive Volatile Compounds from Plants. ACS Symposium Series 525. Amer. Chem. Soc., Washington DC</i>			
Motor-Stimulant	Buchbauer et al, e.g.Buchbauer et al,1993.Therapeutic properties of essential oils and fragrances. Chap.12 in Teranishi,R, Buttery,R.G and Sugisawa,H. Eds. <i>Bioactive Volatile Compounds from Plants. ACS Symposium Series 525. Amer. Chem. Soc., Washington DC</i>			
Pesticide				
Sedative	Buchbauer et al, e.g.Buchbauer et al,1993.Therapeutic properties of essential oils and fragrances. Chap.12 in Teranishi,R, Buttery,R.G and Sugisawa,H. Eds. <i>Bioactive Volatile Compounds from Plants. ACS Symposium Series 525. Amer. Chem. Soc., Washington DC</i>			
Trichomonistat IC50=10 ug/ml	Nigg, H.N. and Seigler, D.S., eds. 1992. <i>Phytochemical Resources for Medicine and Agriculture. Plenum Press, New York. 445 pp.</i>			

ISOSAFROLE	Flower	--	--	*
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Activities (3)				
Carcinogenic	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses			
Hepatotropic	Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.</i>			
Perfumery	Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.</i>			

L-CADINOL	Flower	--	--	*
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L-LINALOL	Flower	--	--	*
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METHYL-ANTHRALINATE	Flower	--	--	*
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METHYL-BENZOATE	Flower	--	--	*
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Activities (4)				
Antiseptic				
Flavor FEMA 2-10	Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry			
Irritant	Zebovitz, T. C. Ed. 1989. Part VII. Flavor and Fragrance Substances, in Keith L. H. and Walters, D.B., eds. <i>Compendium of Safety Data Sheets for Research and Industrial Chemicals. VCH Publishers, New York. 3560-4253.</i>			
Perfumery	Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry			

METHYL-SALICYLATE	Flower	--	--	*
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Activities (21)				
Allergenic	Martindale's 28th			
Analgesic				
Anaphrodisiac				
Antiinflammatory	Planta Medica, 56(6): 660, 1990.			
Antioxidant				
Antipyretic				
Antiradicular	O'Connell, M.J., Webster, N.R. 1989. Hyperoxia and salicylate metabolism in rats. <i>J. Pharm. Pharmacol.</i> 42: 205-206, 1990.			
Antirheumatalgic	Martindale's 28th			
Antiseptic				
Antitartar				
Cancer-Preventive	Stitt, P. A. Why George Should Eat Broccoli. Dougherty Co, Milwaukee, WI, 1990, 399 pp.			
Carminative				
Counterirritant	Merck 11th Edition			
Dentifrice	Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry			
Flavor FEMA 70-8,000	Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry			
Fungicide				
Herpetifuge				
Insectifuge	Hardie, J., Isaacs, R., Pickett,* J.A., Wadhams, L.J., and Woodcock, C.M. 1994. Methyl Salicylate and (-)-(1R,5S)-Myrtenal are Plant-Derived Repellents for Black Bean Aphid, <i>Aphis fabae</i> Scop. (Homoptera: Aphididae). <i>J. of Chemical Ecology</i> , 20(11):2847.			
Insectiphile				
Perfumery	Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry			
Pesticide				

NEROL	Flower	--	--	*
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Activities (10)				
Antibacterial	HerbalGram No. 17.			
Antihelicobacter				

Antiulcer				
Estrogenic				
FLavor FEMA 1-20	Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry			
Perfumery	Merck 11th Edition			
Pesticide				
Sedative	Zebovitz, T. C. Ed. 1989. Part VII. Flavor and Fragrance Substances, in Keith L. H. and Walters, D.B., eds. Compendium of Safety Data Sheets for Research and Industrial Chemicals. VCH Publishers, New York. 3560-4253.			
Trichomonicide ED100=300 ug/ml				

NEROLIDIOL	Flower	--	--	*
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Activities (1)				
Perfumery	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.			

P-CRESOL	Flower	--	--	*
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Activities (8)				
Allelochemic IC50=1.13 mM	Lydon, J. & Duke, S., The potential of pesticides from plants, pp. 1-41 in Craker, L. & Simon, J., eds, Herbs, Spices & Medicinal Plants: Recent Advances in Botany, Horticulture, & Pharmacology, v. 4, Oryx Press, Phoenix, 1989, 267pp.			
Antimutagenic	Economic & Medicinal Plant Research, 6: 235.			
Antiseptic	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.			
Cancer-Preventive	Stitt, P. A. Why George Should Eat Broccoli. Dougherty Co, Milwaukee, WI, 1990, 399 pp.			
FLavor FEMA <1	Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry			
Parasiticide	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.			
Pesticide				
Rodenticide LD50=1,100 cut rat				

P-CRESOL-METHYL-ETHER	Flower	--	--	*
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Activities (1)				
FLavor FEMA 0.5-8	Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry			

P-CRESYL-ACETATE	Flower	--	--	*
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Activities (1)				
FLavor FEMA 0.5-220	Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry			

P-TOLYLMETHYLETHER	Flower	--	--	*
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PHENYL-ETHYL-ALCOHOL	Flower	--	--	*
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SAFROLE	Flower	--	--	*
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Activities (29)				
Anesthetic				
Antiaggregant IC50=110 uM	Janssens, J., Laekeman, G.M., Pieters, L.A.C., Totte, J., Herman, A.G., and Vlietinck, A.J. 1990. Nutmeg Oil: Identification and Quantitation of its Most Active Constituents as Inhibitors of Platelet Aggregation. J.of Ethnopharmacology, 29: 179-188, 1990.			
Antibacterial				
Anticonvulsant	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.			
Antiseptic	Merck 11th Edition			
CNS-Depressant	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.			
CNS-Stimulant	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.			
Calcium-Antagonist IC50=58 uM				
Calcium-Antagonist IC50=57 uM gpg				
Cancer-Preventive	Stitt, P. A. Why George Should Eat Broccoli. Dougherty Co, Milwaukee, WI, 1990, 399 pp.			
Carcinogenic	Merck 11th Edition			
Carminative				
Controlled	HerbalGram No. 20, page 15.			
Cytochrome-P450-Inducer	Newall, C. A., Anderson, L. A. and Phillipson, J. D. 1996. Herbal Medicine - A Guide for Health-care Professionals. The Pharmaceutical Press, London. 296pp.			
Cytochrome-P488-Inducer	Newall, C. A., Anderson, L. A. and Phillipson, J. D. 1996. Herbal Medicine - A Guide for Health-care Professionals. The Pharmaceutical Press, London. 296pp.			
DNA-Binder	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.			
Hepatocarcinogenic	Newall, C. A., Anderson, L. A. and Phillipson, J. D. 1996. Herbal Medicine - A Guide for Health-care Professionals. The Pharmaceutical Press, London. 296pp.			
Hepatoregenerative	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses			

Hypothermic	Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants.</i> Taylor & Frost, London. 791 pp.
Irritant	Rinzler, C. A. 1990. <i>The Complete Book of Herbs, Spices and Condiments.</i> Facts on File, New York. 199 pp.
Mutagenic	
Nematicide MLC=1 mg/ml	Shoyakugaku Zasshi, 44: 183.
Neurotoxic	R.J. Hixtable (Huxtable, R.J. (as T. Max). 1992. <i>This and That: The Essential Pharmacology of Herbs and Spices.</i> Tips 13:15-20 Huxtable, R.J. 1992b. <i>The Myth of Benificent Nature. The Risk of Herbal Preparations.</i> Anns. Intern. Med. 117(2):165-6; Huxtable, R.
Pediculicide	Merck 11th Edition
Perfumery	Merck 11th Edition
Pesticide	
Psychoactive	R.J. Hixtable (Huxtable, R.J. (as T. Max). 1992. <i>This and That: The Essential Pharmacology of Herbs and Spices.</i> Tips 13:15-20 Huxtable, R.J. 1992b. <i>The Myth of Benificent Nature. The Risk of Herbal Preparations.</i> Anns. Intern. Med. 117(2):165-6; Huxtable, R.
Tremorigenic	

SALICYLIC-ACID	Flower	--	--	*
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Activities (34)				
Aldose-Reductase-Inhibitor 724.6 uM	Toyomizu, M., Sugiyama, S., Jin, R. L., Nakatsu, T. 1993. Alpha-Glucosidase and Aldose Reductase Inhibitors: Constituents of Cashew, Anacardium occidentale, Nut Shell Liquids. <i>Phytotherapy Research</i> , 7(3): 252-254.			
Analgesic				
Antiarthritic	Madaus, G. 1976. <i>Lehrbuch der Biologischen Hilfsmittel.</i> Vol., 1-3. 2862 pp. (+ 144 p. index). Georg Olms Verlag, Hildesheim. Reprint of 1938 Madaus.			
Antibacterial	Martindale's 28th			
Antidandruff	A.L.L. Hunting. <i>Encyclopedia of Shampoo Ingredients.</i> Micelle Press, Cranford NJ. 467 pp.			
Antidermatotic				
Antieczemic				
Antiichthyosic	Martindale's 29th			
Antiinflammatory	Pharmazie, 46: 156, 1991.			
Antineuralgic	Madaus, G. 1976. <i>Lehrbuch der Biologischen Hilfsmittel.</i> Vol., 1-3. 2862 pp. (+ 144 p. index). Georg Olms Verlag, Hildesheim. Reprint of 1938 Madaus.			
Antioncychomycotic	Martindale's 29th			
Antioxidant	Huang, K. C. 1993. <i>The Pharmacology of Chinese Herbs.</i> CRC Press, Boca Raton, FL 388 pp.			
Antiperiodic				
Antipodagric				
Antipsoriac				
Antipyretic				
Antirheumatic				
Antiseborrheic				
Antiseptic	A.L.L. Hunting. <i>Encyclopedia of Shampoo Ingredients.</i> Micelle Press, Cranford NJ. 467 pp.			
Antitumor				
Antitympanitic	Merck 11th Edition			
COX-2-Inhibitor	Newmark, T. M. and Schulick, P. 2000. <i>Herbal Cox-2 Inhibition - Nature's Challenge to Arthritis, Cancer & Alzheimer's Disease.</i> Hohm Press, Prescott AZ.			
Cancer-Preventive	Stitt, P. A. <i>Why George Should Eat Broccoli.</i> Dougherty Co, Milwaukee, WI, 1990, 399 pp.			
Comedolytic	Martindale's 29th			
Cyclooxygenase-Inhibitor				
Dermatitigenic	Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants.</i> Taylor & Frost, London. 791 pp.			
Fungicide MIC 1,000 ug/ml				
Hypoglycemic	Economic & Medicinal Plant Research, 6: 158.			
Insectifuge	Tunon, H., Thorsell, W., and Bohlin, L. 1993. Mosquito Repelling Activity of Compounds Occurring in <i>Achillea millefolium</i> L. (Asteraceae). <i>Economic Botany</i> 48(2): 111-120, 1994.			
Keratolytic	Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants.</i> Taylor & Frost, London. 791 pp.			
Pesticide				
Thermogenic 130 ppm				
Tineacide	Martindale's 29th			
Ulcerogenic				

SAMPANGINE	Plant	--	--	*
SESQUITERPENES	Flower	1650.0	14625.0	*
TERPENES	Flower	15.0	135.0	*
YLANGENE	Plant	--	--	*

Activities (1)				
Perfumery				